

## ABSTRACT:

A video signal interpolation can adapt an image of input video signal to voluntary aspect ratios widely. The invention also allows a display device to uniformly line-sequential scan and uses at least two line-memories (LM1, LM2) which are applied with an input digital video signal and controls writing and reading for these line-memories to  
5 generate a video signal subjected to vertical interpolation from a reading output of the line-memories. In the control, any one of the line-memories are circularly selected, and a sample sequence of the input digital video signal is sequentially written into the selected line-memory at its sample rate while sequentially reading out samples of the written sequence at a  
10 constant rate which is higher than the sample rate and which is according to a desired ratio of interpolation (vertical expansion ratio), wherein, when one of the line-memories is in writing operation, the other one of the line-memories is repeatedly read out. The invention also relates to a horizontal interpolation method for a video signal.

Fig. 1